CLAIMS

I claim:

1. A sealing system for reducing a gap between a tip of a shrouded turbine blade and a stationary shroud of a turbine engine, comprising:

a turbine blade assembly having at least one stage formed from a plurality of shrouded turbine blades;

at least one seal land coupled to at least one shrouded turbine blade, the at least one seal land extending from a tip of the at least one shrouded turbine blade toward the stationary shroud of the turbine engine and having a curved configuration; and

wherein the at least one seal land is adapted to straighten from a curved resting position to an operating position where a tip of the at least one seal land is closer to the stationary shroud of the turbine engine than when the turbine engine is in a resting position.

2. The sealing system of claim 1, further comprising at least one protrusion extending from the stationary shroud toward the turbine blade assembly.

3. The sealing system of claim 2, wherein at least one protrusion extends circumferentially about an axis of rotation of the turbine blade assembly.

4. The sealing system of claim 2, wherein the at least one seal land comprises at least a first seal land and a second seal land, wherein the first seal land is positioned on the shrouded turbine blade upstream of the at least one protrusion extending from the stationary shroud, and the second seal land is positioned on the shrouded turbine blade downstream of the at least one protrusion extending from the stationary shroud.

5. The sealing system of claim 1, wherein the at least one seal land is attached to the shrouded turbine blade by sliding the at least one seal land into a slot in the tip of the shrouded turbine blade.

6. The sealing system of claim 1, wherein the at least one seal land is brazed to the tip of the shrouded turbine blade.

7. The sealing system of claim 1, wherein the at least one seal land is formed from a curved bi-metallic strip.

8. The sealing system of claim 7, wherein the at least one seal land is formed from a first material having a first coefficient of thermal expansion and a second material having a second coefficient of thermal expansion greater than the first coefficient of the thermal expansion, wherein the first material forms the outer perimeter of the at least one seal land and the second material forms the inner perimeter of the at least one seal land.

9. The sealing system of claim 1, wherein the at least one seal land is curved into a gas flow.

10. A turbine engine having a sealing system for reducing a gap between a tip of a shrouded turbine blade and a stationary shroud of a turbine engine, comprising:

at least one shrouded turbine blade;

at least one seal land coupled to at least one shrouded turbine blade, the at least one seal land extending from a tip of the at least one shrouded turbine blade toward the stationary shroud of the turbine engine and having a curved configuration;

at least one protrusion extending from the stationary shroud toward the turbine blade assembly;

wherein the at least one seal land is adapted to straighten from a curved resting position to an operating position where a tip of the at least one seal land is closer to the stationary shroud of the turbine engine than when the turbine engine is in a resting position.

11. The turbine engine of claim 10, wherein at least one protrusion extends circumferentially about an axis of rotation.

12. The turbine engine of claim 10, wherein the at least one seal land comprises at least a first seal land and a second seal land, wherein the first seal land is positioned on the shrouded turbine blade upstream of the at least one protrusion extending from the stationary shroud, and the second seal land is positioned on the shrouded blade downstream of the at least one protrusion extending from the stationary shroud.

13. The turbine engine of claim 10, wherein the at least one seal land is attached to the blade by sliding the at least one seal land into a slot in the tip of the shrouded blade.

14. The turbine engine of claim 9, wherein the at least one seal land is brazed to the tip of the shrouded blade.

15. The turbine engine of claim 9, wherein the at least one seal land is formed from a curved bi-metallic strip.

16. The turbine engine of claim 15, wherein the at least one seal land is formed from a first material having a first coefficient of thermal expansion and a second material having a second coefficient of thermal expansion greater than the first coefficient of the thermal expansion, wherein the first material forms the outer perimeter of the at least one seal land and the second material forms the inner perimeter of the at least one seal land.

17. The turbine engine of claim 10, wherein the at least one seal land is curved into a gas flow.